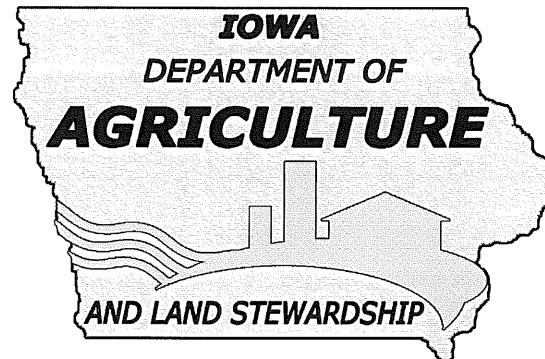


Iowa Department of Agriculture & Land Stewardship
BILL NORTHEY, Secretary of Agriculture

STATE CLIMATOLOGIST OFFICE

IOWA CLIMATE REVIEW

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MAY 2017



The cooperation of the National Weather Service offices at Davenport, Johnston (Des Moines), La Crosse, Sioux Falls and Valley (Omaha) and their network of volunteer weather observers across Iowa in providing the data used in compiling this report is gratefully acknowledged.

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The climatic data used in this report are compiled from official records on file at the State Climatologist Office in Des Moines. Some of these data are of a preliminary nature and are subject to change without notice. Differences may exist in data values published here and those subsequently published in the U.S. Department of Commerce report *Climatological Data Iowa* due to use of differing quality control procedures.

IOWA WEATHER SUMMARY – MAY 2017

General Summary. Iowa temperatures averaged 58.6° or 1.5° below normal while precipitation totaled 4.85 inches or 0.29 inches above normal. This ranks as the 69th coolest and 44th wettest May among 145 years of records. This was the coolest May since 2008 and wettest since 2013.

Temperatures. May began with unseasonably cold weather for the first four days of the month. Cherokee reported the lowest temperature of the month with a 27° reading on the morning of the 2nd. No freezes were recorded anywhere in Iowa after the 4th. Above normal temperatures prevailed each day from the 5th through the 17th. Temperatures climbed into the nineties on the 8th, 15th and 16th over portions of the southwest one-half of the state. Highest temperatures were 94° readings at Little Sioux on the 8th and Shenandoah on the 15th. May finished with mostly cooler than usual weather for the final two weeks of the month. The coldest late-month weather came on the 19th, 20th and 21st when daytime high temperatures were only in the forties over portions of northern Iowa.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, were 8% greater than last May and 16% greater than normal. Heating degree day totals so far this season (since July 1, 2016) are running 2% less than last season at this time and 15% less than normal.

Precipitation. Widespread rain which prevailed over the final three days of April continued into the first day of May with the rain changing to snow over far northwestern Iowa on the night of April 30 and into the morning of May 1st. The snow briefly accumulated northwest of a Le Mars to Spirit Lake line with a maximum amount of two inches reported at Lester. A prolonged period of warmer, and mostly dry weather prevailed statewide from the 2nd into the 15th and allowed a large amount of planting progress to be made, although moderate to locally heavy rain on the 10th interrupted field work for a few days over the southeast two-thirds of Iowa. Frequent widespread moderate to heavy rain from the 16th through the 20th, along with a turn to much colder weather, put a stop to planting activity until

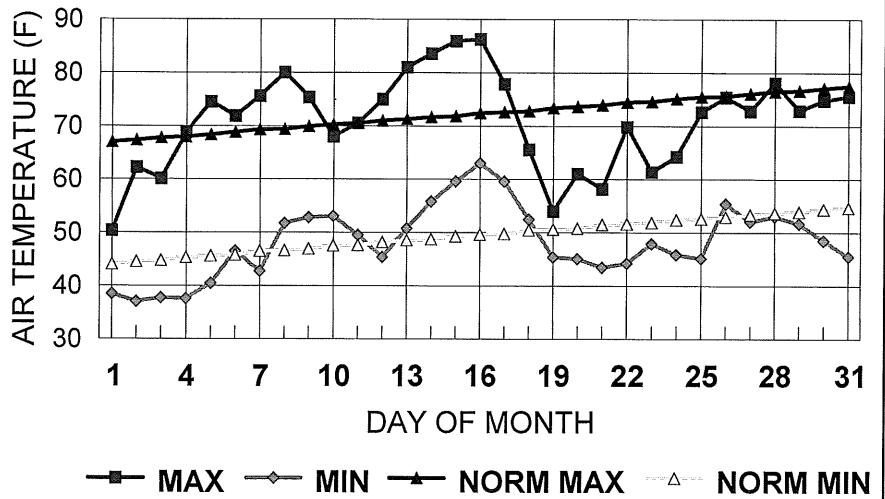
fields slowly dried out later in the month. Despite the weather delays at mid-month the percentage of corn and beans planted by month's end was near normal for late May. However, planting was most delayed in south central Iowa where both April, and the second week of May, was wetter than elsewhere in the state. Overall, May rain totals were well above normal across west central Iowa and least over the far southeast. Monthly rain totals varied from 2.51 inches at Fort Madison to 8.24 inches near Anita.

Severe Weather. There were numerous dates with isolated severe storms during May on the 7th, 8th, 10th, 14th, 19th, 22nd, 27th and 28th. However, one of the most active severe thunderstorm periods in the past few years came at mid-month on three consecutive nights beginning on the 15th. The first event brought reports of high winds and/or large hail from 19 counties across the north one-third of the state. The next night a band of severe storms were focused across west central into north central Iowa with large hail and/or high winds reported from 28 counties. However, the largest severe weather outbreak by far came on the evening of the 17th when high winds and/or large hail was reported from 57 counties, mostly along and east of Interstate Highway 35. The three nights combined to bring severe weather reports from 75 of Iowa's 99 counties.

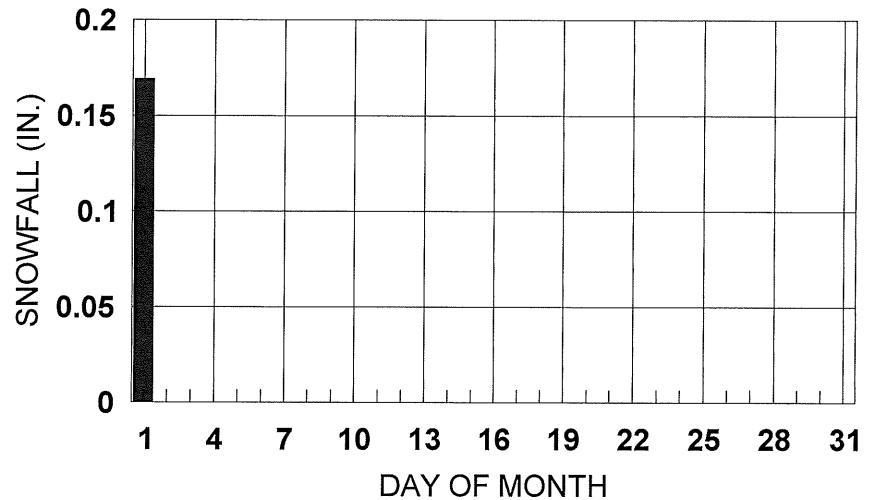
Spring Summary. Temperatures for the three spring months of March, April and May averaged 48.8° or 0.5° above normal while precipitation totaled 11.28 inches or 1.06 inches above normal. This ranks as the 29th warmest and 32nd wettest spring among 145 years of records.

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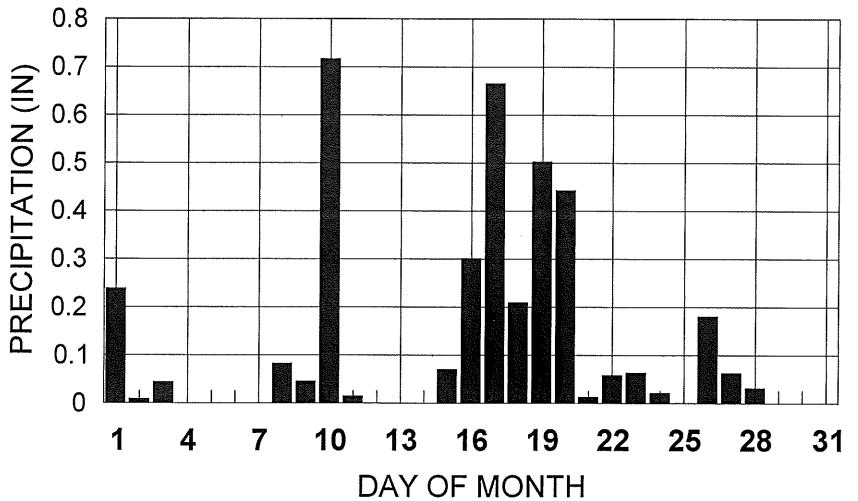
IOWA DAILY MAX & MIN TEMPERATURES MAY 2017 (SELECTED STATIONS)



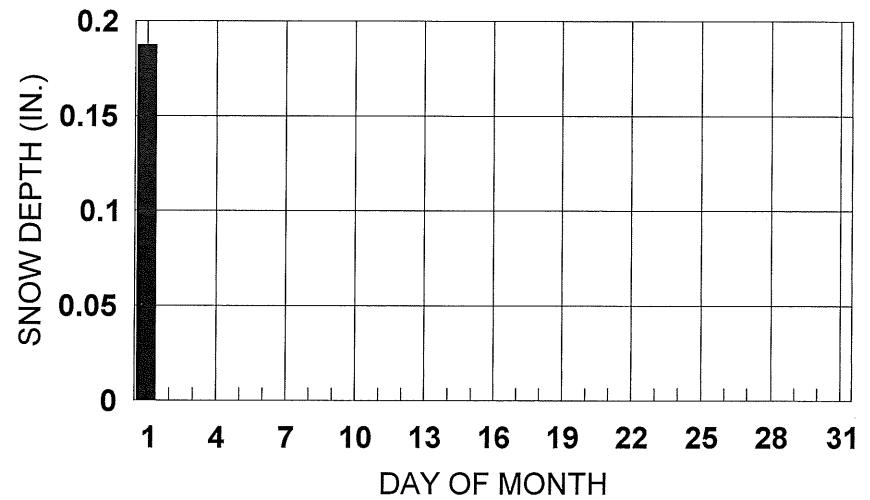
IOWA AVERAGE DAILY SNOWFALL MAY 2017 (SELCTED STATIONS)



IOWA AVERAGE DAILY PRECIPITATION MAY 2017 (SELECTED SATIONS)



IOWA AVERAGE DAILY 6 am SNOW DEPTH MAY 2017 (SELECTED STATIONS)



MAY 2017		MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																IOWA CLIMATE REVIEW		
STATION		TEMPERATURE (F)														PRECIPITATION (inches)				
		NUMBER OF DAYS				HEATING DEGREE DAYS				COOLING DEGREE DAYS				NUMBER OF DAYS				SNOWFALL (inches)		
		Avg	Avg	Dep	Ext	Ext	Max	Max	Min	Min	May	May	16-17	Norm	May	May	2017	Norm	Dep	Ext
		Max	Min	Mean	Norm	Max	Day	Min	Day	90+	32+	32-	0-	2017	Norm	Seas	Seas	2017	Norm	Seas
NORTHWEST DIVISION																				
Akron																				
Cherokee	68.6	44.7	56.7	-2.2	88	9	27	2	0	0	2	0	276	230	6574	7303	25	40	25	47
Emmetsburg	69.1	46.0	57.6	-0.9	88	9	35	5+	0	0	0	0	258	236	6476	7758	33	32	33	36
Estherville Airport	68.4	44.8	56.6	-1.8	86	16	33	2+	0	0	0	0	273	237	6810	7698	21	34	21	36
Estherville 4 E	67.3	44.7	56.0	-1.9	86	17+	32	2	0	0	1	0	291	250	6978	7812	20	30	20	34
Everly 3 WNW																				
Hawarden	69.6	45.2	57.4	-2.0	89	9	30	2	0	0	2	0	260	216	6520	7399	33	41	33	48
Le Mars	69.9	45.4	57.7	-2.1	90	9	32	2+	1	0	2	0	248	208	6377	7289	27	47	27	54
Orange City																				
Pocahontas	69.4	47.4	58.4	-1.5	88	17+	35	2	0	0	0	0	231	206	6403	7338	36	47	36	55
Primghar	71.5	48.3	59.9	-1.0	88	8	32	1	0	0	1	0	200	180	5988	6999	48	55	48	66
Remsen #2																				
Rock Rapids	68.3	45.6	57.0	-1.8	87	9	32	2+	0	0	2	0	273	229	6717	7704	30	37	30	42
Rock Valley																				
Sanborn	67.1	46.1	56.6	-1.7	85	9	31	2+	0	0	2	0	278	245	6771	7784	25	36	25	40
Sheldon	67.4	43.6	55.5	-2.1	86	15+	31	2	0	0	2	0	306	260	6821	8069	22	29	22	32
Sibley	67.2	44.0	55.6	-2.1	87	9	30	2	0	0	3	0	307	258	7023	7948	25	30	25	34
Sioux Center 2 SE	72.6	46.7	59.7	-1.8	88	9+	32	1	0	0	1	0	202	171	5994	6930	43	61	43	72
Sioux Rapids 4 E	69.9	46.7	58.3	-1.0	86	16+	32	1	0	0	1	0	230	216	6318	7367	31	39	32	45
Spencer Airport	70.6	45.0	57.8	-0.9	90	8	32	2	1	0	1	0	244	232	6477	7612	28	39	28	42
Spencer 1 N	69.3	46.1	57.7	-1.1	88	8	32	1	0	0	1	0	247	229	6515	7589	32	39	32	45
Spirit Lake 4 W	69.0	47.3	58.2		87	8	32	1	0	0	1	0	234	6477			30	30	4.88	1.80
Storm Lake	68.5	47.4	58.0	-1.5	86	17+	32	2	0	0	1	0	244	211	6391	7238	33	42	33	49
NORTH CENTRAL DIVISION																				
Algona 3 W	68.5	45.9	57.2	-1.1	88	17	35	5+	0	0	0	0	265	240	6635	7720	30	32	30	36
Allison	67.4	46.5	57.0	-2.5	87	17	38	4+	0	0	0	0	267	205	6354	7331	27	36	27	42
Britt													247		7793		32	36		
Charles City	67.5	46.7	57.1	-2.1	85	16	33	3	0	0	0	0	257	212	6454	7312	19	34	19	40
Clarion	69.3	46.6	58.0	-1.7	87	17	35	3+	0	0	0	0	248	209	7329	39	44	39	51	4.58
Dakota City	68.8	46.6	57.7	-0.9	87	17	36	2	0	0	0	0	251	228	6388	7437	34	29	34	31
Forest City 2 NNE	66.7	46.4	56.6	-2.3	85	17	37	3+	0	0	0	0	275	225	6912	7699	22	34	22	38
Hampton	69.0	47.0	58.0	-0.8	87	17	35	3	0	0	0	0	244	228	6304	7429	35	35	35	40
Kanawha																				
Lake Mills																				
Mason City	67.4	46.1	56.8	-0.9	85	17+	35	3	0	0	0	0	273	255	6574	7737	26	29	26	34
Mason City Airport	68.7	45.4	57.1	-1.3	85	16+	33	3	0	0	0	0	266	235	6674	7635	25	30	25	35
Nashua 2 SW																				
Northwood	64.9	44.7	54.8	-2.6	84	17	34	4+	0	0	0	0	330	262		7999	19	27	19	31
Osage	67.2	47.6	57.4	-0.9	85	17+	38	5+	0	0	0	0	255	239	6596	7685	27	29	27	33
Saint Ansgar																				
Swea City 4 W	67.7	45.1	56.4	-2.0	87	17	35	2	0	0	0	0	284	238	6873	7920	25	34	25	37
NORTHEAST DIVISION																				
Cascade	67.9	47.5	57.7	-1.3	86	17+	32	3	0	0	1	0	251	222	5809	7140	33	36	39	41
Cresco 1 NE	66.9	43.6	55.3	-1.2	85	17+	29	3	0	0	2	0	311	285		8055	17	22	17	25
Decorah	68.9	45.4	57.2	-2.2	86	17+	29	3	0	0	1	0	256	211	6192	7086	23	36	23	43
Dubuque Lock & Dam 11	67.3	47.4	57.4	-3.1	87	17	36	4+	0	0	0	0	257	188	6008	6758	27	47	33	53

MAY 2017		MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																				IOWA CLIMATE REVIEW												
STATION		TEMPERATURE (F)												PRECIPITATION (inches)								NUMBER OF DAYS		SNOWFALL (inches)										
		Avg	Avg	Dep	Ext	Ext	Max	Max	Min	Min	90+	32+	32-	0-	May	May	16-17	Norm	May	May	2017	Norm	Seas	Seas	Total	Norm	Day	Day	0.01+	0.10+	1.00+	Total	GND	Day
		Max	Min	Mean	Norm	Max	Day	Min	Day						2017	Norm	Seas	Seas	2017	Norm	Seas	Seas								Max	On			
Montezuma 1 W																																		
Newton	70.4	48.8	59.6	-0.8	90	16	38	5+	1	0	0	0	0		207	186	5689	6861	49	44	49	51	4.01	-0.63	1.22	11	10	7	1	0.0	0			
Perry	71.5	47.2	59.4	-0.9	90	16	33	2	1	0	0	0	0		217	193	5661	6894	47	47	48	55	5.56	0.88	1.09	1	12	11	1	0.0	0			
Toledo 3 N	68.3	46.2	57.3	-1.7	87	16	33	4	0	0	0	0	0		260	221	6090	7088	27	35	27	40	3.61	-1.07	0.89	11	9	8	0	0.0	0			
Webster City	68.6	45.2	56.9	-2.5	86	17	33	2	0	0	0	0	0		271	210	6342	7254	30	37	30	42	4.71	0.09	1.16	1	12	9	2	0.0	0			
Zearing																																		
EAST CENTRAL DIVISION																																		
Anamosa 3 SSW	67.5	46.1	56.8	-1.7	85	16	32	5+	0	0	3	0	0		269	233	5832	7141	24	32	26	38	5.00	0.70	1.05	11	14	8	1	0.0	0			
Belle Plaine	69.6	46.8	58.2	-1.4	87	16	33	3	0	0	0	0	0		238	205	5739	7014	35	38	36	44	4.10	-0.11	1.00	11	10	10	1	0.0	0			
Bellevue Lock & Dam 12	68.6	47.4	58.0	-1.6	87	17	+32	3	0	0	1	0	0		240	207	5745	6813	28	41	36	48	4.92	1.03	1.00	18	15	10	1	0.0	0			
Cedar Rapids Airport	69.8	47.3	58.6	-1.5	88	15	33	3	0	0	0	0	0		223	192	5734	6837	29	42	38	49	3.66	0.89	17	9	7	0	0.0	0				
Cedar Rapids #1	72.7	47.4	60.1	-1.8	89	16	31	3	0	0	1	0	0		188	154	5351	6283	41	58	51	72	4.75	-0.01	1.03	10	12	10	1	0.0	0			
Clinton #1	70.1	50.1	60.1	-2.1	86	16	+32	3	0	0	1	0	0		189	150	5188	6184	46	64	61	78	3.95	0.02	1.24	10	13	6	1	0.0	0			
Coggon	67.7	45.7	56.7		86	17	+30	3	0	0	2	0	0		275		6234		28		29		4.31		0.80	1	12	9	0	0.0	0			
Davenport Airport	70.5	49.2	59.9	-0.9	89	15	32	3	0	0	1	0	0		191	183	5409	6487	39	55	52	61	4.78		2.01	10	8	6	2	0.0	0			
De Witt																																		
Iowa City	69.9	47.5	58.7	-4.1	89	16	33	3	0	0	0	0	0		217	134	5569	6036	30	68	35	82	3.92	-0.65	0.85	19	10	8	0	0.0	0			
Iowa City Airport	72.2	50.0	61.1	-0.3	91	15	35	3	1	0	0	0	0		155	168	5149	6362	42	57	53	61	3.50	0.97	10	8	7	0	0.0	0				
Le Claire L & D 14	69.1	50.3	59.7	-2.3	86	17	40	4	0	0	0	0	0		198	154	5262	6195	43	61	52	69	4.51	0.45	1.94	11	11	7	1	0.0	0			
Lowden	70.8	47.7	59.3	-1.3	87	15	31	3	0	0	1	0	0		201	179	5538	6859	31	41	41	41	3.80	-0.37	1.52	10	10	7	1	0.0	0			
Maquoketa 4 W	67.8	46.5	57.2	-1.4	87	16	30	3	0	0	1	0	0		265	233	6061	7229	29	33	34	38	3.75	-0.29	0.72	11	12	9	0	0.0	0			
Monticello																																		
Muscatine	71.0	49.7	60.4	-2.9	90	16	36	4	1	0	0	0	0		178	131	5298	5916	43	77	52	95	4.30		0.80	18	12	10	0	0.0	0			
Muscatine 2 N																																		
Swisher																																		
Vinton	67.7	45.7	56.7	-4.1	86	16	31	3	0	0	2	0	0		273	177	6307	6676	24	47	24	56	4.06	-0.62	0.88	1	13	10	0	0.0	0			
Williamsburg 1 E	70.0	47.0	58.5	-1.4	90	16	32	3	1	0	1	0	0		228	198	5728	6863	36	42	37	49	5.19	0.52	1.65	11	11	7	2	0.0	0			
SOUTHWEST DIVISION																																		
Atlantic 1 NE	72.7	47.0	59.9	-0.6	91	16	35	2	1	0	0	0	0		200	187	5566	6746	50	47	51	58	6.81	1.92	1.79	17	14	9	2	0.0	0			
Bedford	72.0	49.0	60.5	-0.7	89	16	37	5	0	0	0	0	0		178	166	5278	6343	46	50	47	60	3.72	-1.43	0.90	17	14	7	0	0.0	0			
Clarinda	71.6	47.7	59.7	-0.8	91	16	36	5	1	0	0	0	0		208	184	5436	6580	47	45	47	54	4.10	-1.25	1.27	17	11	7	1	0.0	0			
Corning 1 W																																		
Glenwood	72.7	47.8	60.3	-1.1	92	16	36	2	2	0	0	0	0		193	144	5405	6371	53	32	54	32	8.10	2.93	2.73	17	11	8	3	0.0	0			
Greenfield	70.3	49.0	59.7	-2.4	89	16	34	2	0	0	0	0	0		205	149	5652	6135	46	58	47	72	6.14	1.42	1.36	17	12	8	2	0.0	0			
Hastings 4 NE																																		
Massena																																		
Oakland	71.6	48.9	60.3	-0.8	92	16	35	2	1	0	0	0	0		191	173	5596	6561	55	54	55	64	7.02	2.19	2.07	17	11	8	2	0.0	0			
Randolph																																		
Red Oak	73.3	48.9	61.1	-1.0	92	16	38	5	1	0	0	0	0		171	154	5208	6290	56	64	58	78	6.23	0.59	1.72	19	10	9	3	0.0	0			
Shenandoah	73.7	50.7	62.2	-0.7	94	16	36	1	2	0	0	0	0		151	139	5090	6062	73	74	77	91	5.37	-0.39	1.23	20	11	8	3	0.0	0			
Sidney 1 SSE	72.7	49.9	61.3	-0.9	93	16	35	2	2	0	0	0	0		164	149	5321	6084	60	64	61	79	5.09	-0.12	1.23	17	8	7	2	0.0	0			
Underwood																																		
SOUTH CENTRAL DIVISION																																		
Albia 3 NNE	70.1	49.0	59.6	-1.0	87	16	38	2	0	0	0	0	0		198	179	5313	6350	37	45	39	54	3.74	-1.01	1.18	11	10	6	1	0.0	0			
Allerton	70.3	48.6	59.5	-1.1	88	16	37	3	0	0	0	0	0		204	183	5350	6365	37	46	41	49	3.78	-1.71	0.77	11	12	7	0	0.0	0			

MAY 2017		OBS STATION TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																									IOWA CLIMATE REVIEW						
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Sac City	7	MAX MIN	40 36	43 33	62 35	61 39	67	76	73	81	84	77	59	68	74	80	83	83	85	75	58	46	57	55	71	57	63	72	79	71	76	68	72	68.3
Sioux City Airport	24	MAX MIN	53 33	66 35	64 41	71 36	78	78	84	91	76	68	70	78	83	87	82	86	69	59	52	51	63	73	60	68	74	79	74	78	72	77	76	72.3
CENTRAL DIVISION																																		
Ames Airport	24	MAX MIN	46 41	63 36	60 35	69 34	77	72	77	83	80	72	71	75	81	83	88	86	78	62	51	64	55	72	61	64	72	81	71	79	75	76	77	71.6
Ames 8 WSW	16	MAX MIN	44 40	61 34	61 40	66 42	74	75	77	82	82	78	68	72	80	84	86	89	86	73	57	60	62	71	71	64	70	77	79	78	78	74	75	72.7
Ames 5 SE	6	MAX MIN	44 40	45 34	62 34	60 37	68 39	75	71	77	82	79	69	69	75	80	83	88	86	77	60	48	63	54	72	59	63	71	80	70	78	73	74	69.5
Ankeny	8	MAX MIN	45 40	46 36	63 39	60 36	69 44	78	73	78	83	81	69	73	74	81	85	90	88	80	64	50	67	58	72	60	64	74	82	71	81	74	76	71.3
Boone	8	MAX MIN	42 38	43 32	64 37	61 35	69 38	78	73	78	83	80	70	71	75	80	84	88	86	78	61	47	62	53	72	59	64	73	80	68	78	73	74	69.9
Des Moines Airport	24	MAX MIN	49 41	65 37	61 43	71 39	78	75	80	83	81	71	74	77	81	85	91	89	81	67	54	70	60	72	64	66	75	83	70	82	77	78	78	73.8
Des Moines Camp Dodge	24	MAX MIN	45 40	65 35	60 45	70 40	78	74	78	82	80	68	72	75	80	84	89	86	78	64	51	64	57	71	62	63	73	81	69	79	74	76	77	71.8
Eldora	7	MAX MIN	42 39	45 36	61 35	61 39	68 41	75	70	74	83	76	64	70	74	82	84	89	86	78	60	47	59	50	72	60	61	72	78	72	78	72	72	68.9
Fort Dodge 5 NNW	7	MAX MIN	42 37	42 36	62 37	63 34	68 38	77	72	78	85	78	61	68	75	81	81	84	87	75	57	46	58	53	71	55	63	70	79	70	76	69	71	68.3
Grinnell 3 SW	7	MAX MIN	46 40	46 38	60 34	60 31	69 31	74	69	72	78	75	63	70	73	82	83	87	84	78	62	49	66	53	68	59	61	71	71	69	76	72	73	68.6
Grundy Center	8	MAX MIN	44 40	46 37	61 34	60 35	69 37	74	69	72	78	75	63	70	73	82	83	88	86	80	61	49	59	51	71	61	62	72	75	74	76	70	72	68.6
Iowa Falls	7	MAX MIN	43 38	44 36	61 33	61 35	68 37	76	71	71	82	77	61	70	75	82	84	88	87	77	60	48	59	51	73	61	62	72	78	73	78	71	72	68.9
Marshalltown	7	MAX MIN	45 40	47 38	61 33	60 35	68 40	74	70	75	82	76	65	70	73	81	83	88	86	80	61	49	63	52	71	59	62	73	77	73	78	72	73	69.3
Marshalltown Airport	24	MAX MIN	48 41	62 37	60 33	69 36	74 38	70	75	81	76	66	72	74	81	83	89	87	80	63	51	62	52	71	61	64	72	77	72	78	74	74	75	70.7
Newton	7	MAX MIN	46 38	47 38	62 38	59 38	69 38	75	71	77	83	77	67	72	74	82	83	90	88	81	64	49	66	54	72	60	62	74	79	70	79	74	76	70.4
Perry	7	MAX MIN	43 39	44 33	64 36	65 36	69 37	78	73	81	84	81	81	71	76	81	85	90	88	79	62	49	62	57	73	59	65	74	82	69	80	74	76	71.5
Toledo 3 N	7	MAX MIN	45 38	48 37	61 35	58 33	68 35	73	69	73	78	74	62	70	73	81	82	87	85	79	62	48	61	51	71	60	60	73	72	70	78	73	73	68.3

MAY 2017				DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
STATION	TIME	OBS		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Bedford	7	MAX	47	48	65	60	67	75	74	80	85	81	73	71	74	79	84	89	87	77	70	58	65	65	68	60	66	75	82	74	80	75	78	72.0	
		MIN	39	38	38	37	37	44	45	51	54	61	56	47	48	50	53	63	60	55	52	49	42	45	47	46	45	52	60	52	55	47	50	49.0	
Clarinda	6	MAX	46	50	65	61	68	75	74	80	87	80	73	70	73	80	86	91	87	76	67	58	63	64	66	60	65	73	81	70	79	75	78	71.6	
		MIN	40	38	42	36	36	37	42	52	59	59	56	42	42	47	60	65	59	54	51	49	43	44	48	47	41	41	57	52	49	45	45	47.7	
Corning 1 W	7	MAX	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	89	86	78	66	56	65	63	70	59	65	73	81	68	78	74	77	M	
		MIN	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	68	59	54	51	48	42	44	47	46	42	51	57	53	51	46	43	M	
Glenwood	6	MAX	44	50	66	65	70	77	78	84	90	82	68	71	75	81	89	92	89	76	64	55	60	67	70	60	67	78	80	70	81	75	79	72.7	
		MIN	37	36	43	41	39	38	46	46	59	56	53	43	43	48	62	62	59	55	51	48	43	43	43	44	45	46	60	50	51	46	46	47.8	
Greenfield	8	MAX	44	44	64	59	67	75	72	78	85	79	70	70	73	79	83	89	87	77	64	53	64	61	69	60	63	73	81	67	78	73	77	70.3	
		MIN	39	34	40	35	44	51	44	51	58	56	51	46	51	55	61	67	60	53	48	46	41	43	46	46	43	54	57	52	53	49	46	49.0	
Oakland	7	MAX	43	48	65	65	67	76	76	83	89	80	67	72	76	81	87	92	89	75	63	53	59	64	71	59	66	76	80	68	81	73	77	71.6	
		MIN	36	35	41	42	43	47	49	50	58	55	50	45	45	50	62	65	58	53	49	46	41	42	45	47	48	49	59	51	53	52	50	48.9	
Red Oak	7	MAX	45	52	67	64	70	77	76	82	89	82	74	73	75	80	88	92	88	77	68	58	62	67	70	62	68	76	84	71	81	76	79	73.3	
		MIN	39	38	43	38	38	41	44	48	60	57	54	43	45	48	60	67	60	55	52	49	44	44	49	49	46	53	58	52	51	46	46	48.9	
Shenandoah	8	MAX	46	54	66	64	69	77	77	83	90	84	75	73	75	80	89	94	89	76	69	58	61	67	71	61	68	77	83	72	82	77	78	73.7	
		MIN	36	37	45	39	42	49	48	48	61	58	54	44	47	56	66	69	60	55	52	49	44	45	49	49	48	57	57	54	56	48	49	50.7	
Sidney 1 SSE	7	MAX	44	54	66	63	69	75	77	83	90	83	73	71	74	80	89	93	89	75	67	56	59	66	70	59	66	77	81	73	81	74	78	72.7	
		MIN	35	35	41	44	46	46	50	51	60	56	51	48	49	54	60	65	58	53	51	49	42	42	48	48	48	48	58	54	54	51	51	49.9	
SOUTH CENTRAL DIVISION																																			
Albia 3 NNE	7	MAX	48	48	63	56	67	74	69	75	79	78	69	71	72	79	81	87	85	78	70	53	71	57	64	65	63	71	75	75	78	75	76	70.1	
		MIN	41	38	39	39	40	46	40	46	52	60	56	48	46	53	57	69	62	57	50	47	46	46	50	45	42	44	56	53	54	50	48	49.0	
Allerton	8	MAX	48	46	62	55	66	72	69	76	81	78	76	69	70	79	81	88	86	78	70	57	72	61	61	62	62	71	78	74	78	76	77	70.3	
		MIN	40	37	37	38	38	43	45	46	53	60	57	48	48	53	57	62	60	56	51	47	46	45	47	45	43	43	58	54	53	48	48	48.6	
Beaconsfield	7	MAX	48	48	62	56	66	73	70	78	82	77	75	69	70	77	81	88	82	77	68	56	66	61	64	59	62	71	78	71	77	75	69.8		
		MIN	39	38	38	40	42	45	45	45	57	62	55	45	47	55	57	63	61	55	50	47	43	43	48	44	45	47	57	55	55	48	48	49.0	
Centerville	7	MAX	51	50	64	56	69	74	71	77	79	81	77	71	73	78	81	87	85	80	72	58	74	61	63	65	63	73	79	76	79	76	77	71.6	
		MIN	40	34	35	32	33	37	37	37	53	59	57	50	43	49	64	64	61	58	52	48	48	41	49	41	39	39	55	52	49	43	42	46.5	
Chariton 1 E	7	MAX	47	47	63	55	68	74	70	76	79	79	69	70	71	78	81	88	85	78	69	55	72	61	65	63	62	71	78	75	79	75	76	70.3	
		MIN	40	33	34	29	30	45	41	45	51	57	56	40	41	53	47	65	60	57	50	47	44	38	48	44	37	37	53	52	47	42	39	45.2	
Creston 2 SW	7	MAX	44	44	61	58	65	74	72	78	84	78	69	69	72	78	83	88	86	77	65	56	67	62	67	58	63	72	81	70	80	74	76	70.0	
		MIN	37	37	38	38	38	45	45	48	58	59	53	47	49	54	59	66	61	53	50	48	43	43	48	48	46	49	57	53	55	50	48	49.1	
Indianola 4 W	7	MAX	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
		MIN	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Knoxville	8	MAX	46	48	62	57	68	74	70	76	81	77	64	72	72	79	82	88	87	80	68	51	70	59	67	63	61	72	78	71	78	74	76	70.0	
		MIN	41	37	42	38	44	44	44	52	53	59	56	50	52	57	62	67	62	56	48	46	44	45	50	47	44	51	57	55	56	51	48	50.3	
Lamoni	7	MAX	51	47	65	57	68	76	73	81	85	82	81	70	74	81	85	91	88	81	72	60	71	65	64	61	64	75	83	75	81	77	79	73.0	
		MIN	41	41	42	41	42	47	47	50	57	63	58	48	48	55	60	63	60	56	53	49	44	44	50	45	47	60	56	57	51	50	50.6		

MAY 2017			'DAILY PRECIPITATION (INCHES) FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW															
STATION	OBS	TIME	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
NORTHWEST DIVISION																																										
Akron	7	7.53	2.10	T	0.02					0.03	0.02	0.17						0.22	2.83	0.85	0.31	0.55	0.30		T	0.11				0.01	0.01											
Cherokee	8	5.27	1.17	0.05		0.08				0.44	0.04	0.20						0.21	0.66	0.31	0.22	1.17	0.43	0.02	0.14	0.13	T															
Emmetsburg	8	3.51	0.86	0.02		0.02					0.07	0.06						0.02	0.87	0.14	0.11	0.79	0.40		0.09	0.03	T										0.03					
Estherville Airport	24	4.34	0.14		0.02						0.05	T						0.09	0.30	1.35	T	0.41	1.44		0.33	0.11	T		T	0.01	0.09											
Estherville 4 E	7	5.37	1.02	0.01		0.05					0.04	T						0.10	0.85	0.90	0.09	1.17	0.55		0.40	0.07	T	I	0.03	0.09												
Everly 3 WNW	7	5.84	1.54	0.03	0.03	0.20				0.07	0.05	0.04						0.11	0.78	0.21	0.08	1.40	0.75	0.05	0.30	0.10	T		0.01	0.09												
Hawarden	7	5.36	1.57	0.10		T					0.07	0.03						0.25	1.10	0.79	0.18	0.86	0.20		T	0.18				0.03												
Le Mars	7	4.66	1.54	0.04		0.03				I		0.21						0.52	0.54	0.31	0.12	0.79	0.38			0.18		T														
Orange City	7	5.04	1.61	0.03		0.02					0.04	0.09						0.26	0.77	0.43	0.06	0.99	0.42		0.07	0.21	T															
Pocahontas	8	5.19	1.09	T						T		T	0.21					0.34	2.24	0.06	0.18	0.67	0.40			T	T															
Primghar	16	4.49	1.17			0.11					0.13						0.03	0.05	0.88	0.15	0.49	1.16	0.10	0.02	0.13	0.03		0.04	I													
Remsen #2	6	5.24	1.67	0.06		0.22				0.01		0.12						0.33	0.56	0.46	0.10	0.92	0.62		T	0.17																
Rock Rapids	8	3.90	1.50	0.05	0.02													T	0.49	0.69	0.03	0.79	0.18		T	0.07				0.07	0.01											
Rock Valley	7	4.93	1.66	0.08		0.06						T						0.03	0.97	0.53	0.03	1.08	0.24	0.02	T	0.06	T															
Sanborn	8	5.94	1.50	0.02	T	0.24				0.28	0.14	0.05						0.28	0.72	0.53	0.10	1.05	0.72	0.05	0.02	0.18		0.06	T													
Sheldon	7	4.96	1.50	0.06		0.01				T	0.03	0.07						0.13	0.92	0.25	0.05	1.05	0.65	0.04	T	0.14				0.06												
Sibley	7	5.12	1.37	0.03	T	0.06				0.03							0.05	1.15	0.37	0.02	1.02	0.69	0.02	0.05	0.13			0.09	0.04													
Sioux Center 2 SE	16	6.10	1.37		T						0.14						0.12	0.12	2.58	0.20	0.57	0.70	0.02		0.10	0.15	T	0.03	I	T												
Sioux Rapids 4 E	22	3.72	0.18	0.03	T					0.18	0.28						0.03	0.34	0.67	0.44	1.30			0.15	0.12	T																
Spencer Airport	24	4.30	0.15	0.22						T	0.16	0.01						0.04	0.38	1.44	0.04	0.55	1.06	T	0.19	0.03	T		0.02	0.01	T											
Spencer 1 N	24	3.78	1.0	0.11							0.11	0.02						0.06	0.6	1.40	0.03	0.50	1.12	I	0.10	0.03	T	T	0.04	0.10	I											
Spirit Lake 4 W	24	4.88	0.17		0.12						T	0.01						0.13	0.80	0.86	0.03	0.40	1.80	0.12	0.20	0.11			0.08	0.03	0.02											
Storm Lake	8	5.66	1.58	I	I					0.37	0.07	0.21						0.13	1.29	0.26	0.32	0.97	0.43		0.03	T																
NORTH CENTRAL DIVISION																																										
Algona 3 W	6	6.24	1.20	T							0.19	0.21						0.23	1.95	0.30	0.04	0.57	0.57		0.93	0.05	T	T	T	T												
Allison	7	3.97	0.70	0.45						0.06	0.46							0.10	0.35	0.30	0.10	0.65	0.30		0.15	0.25			0.10													
Britt	7	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M						
Charles City	7	4.99	0.99	0.25						T	0.02	0.32						0.67	0.62	0.61	0.06	0.70	0.38	0.01	0.23	0.08	T	0.02	0.03													
Clarion	7	4.58	1.00	0.20							0.39							0.60	0.82	0.62	0.20	0.45	0.11		0.07	0.10		0.02														
Dakota City	8	4.72	1.00	0.05						T	0.02	0.42						0.24	1.30	0.32	0.18	0.64	0.37	T	0.02	0.16																
Forest City 2 NNE	7	4.61	0.82	0.05						0.25	0.08	0.23						0.05	1.11	0.39	T	0.52	0.66	T	0.27	0.18																
Hampton	7	4.59	0.75	0.30							0.40							0.40	0.90	0.28	0.10	0.66	0.33		0.05	0.27			0.15													
Kanawha	8	4.05	0.91	0.09							0.09	0.39						0.43	0.78	0.49	0.06	0.44	0.21	0.01	0.09	0.06																
Lake Mills	7	4.99	0.82	0.10							0.01	0.08	0.13					0.05	1.83	0.33		0.58	0.35	0.01	0.50	0.20																
Mason City	7	5.03	0.93	0.15							0.16	0.11	0.39					0.40	0.80	0.67	0.03	0.57	0.55	0.02	0.18	0.05	T	T	0.02													
Mason City Airport	24	3.88	0.20							0.39	0.09	0.36						0.30	0.58	0.71	T	0.46	0.39	0.01	0.29	0.08	0.01	0.01														
Nashua 2 SW	7	5.60	1.00	0.26							0.09	0.03	0.38						1.26	0.35	0.53	0.10	0.54	0.26	T	0.57	0.20			0.03												
Northwood	7	4.42	0.97	0.10							0.21	0.11	0.14						0.11	0.64	0.55	0.01	0.51	0.41	0.02	0.49	0.12	T	0.03	T												
Osage	7	4.63	1.18	0.10							0.07	0.36						0.59	0.55	0.80	0.04	0.45	0.35	T	0.11	0.03																
Saint Ansgar	6	5.07	0.96	0.14							0.10	0.16	0.32						0.16	0.61	0.52		0.25	0.56	T	1.20	0.08					0.01										
Swea City 4 W	7	4.12	0.97	0.03		0.01					0.02	0.12	0.03					0.25	0.50	0.22	0.01	0.67	0.97		0.17	0.15	0.03	T	T	0.03												
NORTHEAST DIVISION																																										

MAY 2017				DAILY NEW SNOWFALL FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME) AND TOTAL DEPTH OF SNOW ON GROUND (INCHES)																				IOWA CLIMATE REVIEW																
STATION	OBS TIME	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	DAY OF MONTH						
NORTHWEST DIVISION																																								
Akron	7	SNOWFALL	T	T																																				
		SNOW ON GROUND	T																																					
Cherokee	8	SNOWFALL	T	T	T																																			
Estherville 4 E	7	SNOWFALL	T		T																																			
		SNOW ON GROUND																																						
Everly 3 WNW	7	SNOWFALL	0.5	0.5	T																																			
		SNOW ON GROUND	1																																					
Hawarden	7	SNOWFALL	T	T	T																																			
		SNOW ON GROUND																																						
Orange City	7	SNOWFALL	0.2	0.2	T																																			
		SNOW ON GROUND	T																																					
Rock Rapids	8	SNOWFALL	T	T																																				
		SNOW ON GROUND	T																																					
Rock Valley	7	SNOWFALL	T	T	T																																			
		SNOW ON GROUND	T	T																																				
Sanborn	8	SNOWFALL	0.1	0.1																																				
		SNOW ON GROUND	T																																					
Sheldon	7	SNOWFALL	1.5	1.5	T																																			
		SNOW ON GROUND	1																																					
Sibley	7	SNOWFALL	0.7	0.7																																				
		SNOW ON GROUND	1																																					
Sioux Center 2 SE	16	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
Sioux Rapids 4 E	22	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
Spencer 1 N	24	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
Spirit Lake 4 W	24	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
Storm Lake	8	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
WEST CENTRAL DIVISION																																								
Holstein	7	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
Little Sioux 2 NW	7	SNOWFALL	0.1	0.1	T																																			
		SNOW ON GROUND																																						
Sioux City Airport	24	SNOWFALL	T	T																																				
		SNOW ON GROUND																																						
SUPPLEMENTAL STATIONS																																								
Sioux Falls WFO AP	24	SNOWFALL	2.2	2.2																																				
		SNOW ON GROUND	2																																					



MAY 2017		STATION INDEX			IOWA CLIMATE REVIEW					MAY 2017		STATION INDEX			IOWA CLIMATE REVIEW				
STATION NAME	DIV	COUNTY	COORDINATES			ELEV			STATION NAME	DIV	COUNTY	COORDINATES			ELEV				
			DEG	MIN	SEC	DEG	MIN	SEC				DEG	MIN	SEC	DEG	MIN	SEC		
Akron	NW	Plymouth	42	49	37	96	33	21	1125	Decorah	NE	Winneshiek	43	18	15	91	47	43	860
Albia 3 NNE	SC	Monroe	41	3	56	92	47	12	890	Denison	WC	Crawford	42	2	11	95	19	44	1401
Algona 3 W	NC	Kossuth	43	4	6	94	18	19	1230	Des Moines Airport	C	Polk	41	32	2	93	39	11	957
Allerton	SC	Wayne	40	42	15	93	22	11	1110	Des Moines Camp Dodge	C	Polk	41	44	12	93	43	25	959
Allison	NC	Butler	42	45	13	92	48	8	1048	De Witt	EC	Clinton	41	48	39	90	32	26	685
Ames Airport	C	Story	41	59	26	93	37	8	955	Donnellson	SE	Lee	40	38	45	91	33	50	705
Ames 8 WSW	C	Boone	42	1	15	93	46	27	1099	Dubuque L & D 11	NE	Dubuque	42	32	24	90	38	46	620
Ames 5 SE	C	Story	41	57	7	93	33	56	870	Dubuque Airport	NE	Dubuque	42	23	52	90	42	13	1056
Anamosa 3 SSW	EC	Jones	42	5	35	91	18	7	906	Eldora	C	Hardin	42	21	55	93	5	50	1144
Ankeny	C	Polk	41	43	6	93	34	27	940	Elkader 6 SSW	NE	Clayton	42	46	31	91	27	13	788
Atlantic 1 NE	SW	Cass	41	25	3	95	0	14	1148	Emmetsburg	NW	Palo Alto	43	6	9	94	41	0	1260
Audubon	WC	Audubon	41	42	25	94	55	20	1280	Estherville Airport	NW	Emmet	43	24	4	94	44	50	1317
Battle Creek 3 NE	WC	Ida	42	22	12	95	34	30	1380	Estherville 4 E	NW	Emmet	43	24	13	94	44	50	1320
Beaconsfield	SC	Ringgold	40	48	25	94	2	51	1215	Everly 3 WNW	NW	Clay	43	11	0	95	22	59	1365
Bedford	SW	Taylor	40	40	27	94	43	28	1190	Fairfield	SE	Jefferson	41	1	16	91	57	19	746
Belle Plaine	EC	Benton	41	52	53	92	16	35	810	Fayette	NE	Fayette	42	51	1	91	48	57	1130
Bellevue L & D 12	EC	Jackson	42	15	40	90	25	23	603	Forest City 2 NNE	NC	Winnebago	43	17	4	93	37	50	1276
Bloomfield 1 WNW	SE	Davis	40	45	35	92	26	22	812	Fort Dodge 5 NNW	C	Webster	42	35	1	94	12	2	1140
Boone	C	Boone	42	2	30	93	53	26	1035	Fort Madison	SE	Lee	40	37	16	91	19	34	530
Britt	NC	Hancock	43	6	6	93	48	5	1240	Gilman	C	Marshall	41	52	41	92	46	43	1040
Brooklyn	C	Poweshiek	41	44	22	92	26	24	910	Glenwood	SW	Mills	41	3	6	95	44	57	1060
Burlington Airport	SE	Des Moines	40	46	51	91	7	9	692	Greenfield	SW	Adair	41	17	53	94	27	22	1330
Carroll	WC	Carroll	42	3	54	94	51	0	1227	Grinnell 3 SW	C	Poweshiek	41	43	13	92	44	56	912
Cascade	NE	Dubuque	42	17	56	90	59	54	870	Grundy Center	C	Grundy	42	21	53	92	45	34	1045
Castana Exp. Farm	WC	Monona	42	3	48	95	50	11	1450	Guthrie Center	WC	Guthrie	41	40	7	94	29	50	1075
Cedar Rapids Airport	EC	Linn	41	53	0	91	43	0	868	Guttenberg L & D 10	NE	Clayton	42	47	9	91	5	45	618
Cedar Rapids #1	EC	Linn	42	3	0	91	35	17	810	Hampton	NC	Franklin	42	45	22	93	12	4	1230
Centerville	SC	Appanoose	40	44	11	92	52	9	980	Harlan 1 ESE	WC	Shelby							
Chariton 1 E	SC	Lucas	41	0	59	93	16	45	940	Hastings 4 NE	SW	Mills	41	4	38	95	28	48	1050
Charles City	NC	Floyd	43	3	37	92	40	18	993	Hawarden	NW	Sioux	43	0	11	96	29	6	1190
Cherokee	NW	Cherokee	42	45	26	95	32	16	1180	Holly Springs 1 NW	WC	Woodbury	42	16	49	96	5	46	1100
Clarinda	SW	Page	40	43	28	95	1	19	980	Holstein	WC	Ida	42	29	23	95	32	56	1370
Clarion	NC	Wright	42	43	12	93	44	1	1156	Indianola 4 W	SC	Warren	41	21	56	93	38	53	942
Clinton #1	EC	Clinton	41	47	41	90	15	50	594	Ionia 2 W	NE	Chickasaw	43	2	1	92	30	6	1019
Clutier	C	Tama	42	4	48	92	24	18	900	Iowa City	EC	Johnson	41	36	33	91	30	18	640
Coggan	EC	Linn	42	16	45	91	31	30	903	Iowa City Airport	EC	Johnson	41	37	58	91	32	35	668
Corning 1 W	SW	Adams	40	59	18	94	45	32	1190	Iowa Falls	C	Hardin	42	31	8	93	15	13	1051
Cresco 1 NE	NE	Howard	43	23	22	92	5	38	1255	Jefferson 2 NW	WC	Greene							
Creston 2 SW	SC	Union	41	2	14	94	23	39	1320	Kanawha	NC	Hancock	42	55	52	93	47	36	1185
Dakota City	NC	Humboldt	42	43	32	94	11	43	1110	Keokuk L & D 19	SE	Lee	40	23	48	91	22	30	527
Davenport Airport	EC	Scott	41	36	42	90	34	54	748										

MAY 2017		STATION INDEX			IOWA CLIMATE REVIEW			MAY 2017		STATION INDEX			IOWA CLIMATE REVIEW						
STATION NAME	DIV	COUNTY	COORDINATES			ELEV		STATION NAME	DIV	COUNTY	COORDINATES			ELEV					
			LATITUDE		LONGITUDE		(FT)				DEG	MIN	SEC	DEG	MIN	SEC			
Keosauqua	SE	Van Buren	40	43	39	91	58	6	592	Postville	NE	Allamakee	43	5	24	91	33	29	1165
Knoxville	SC	Marion	41	19	29	93	6	3	915	Primghar	NW	O'Brien	43	5	11	95	37	45	1520
Lake Mills	NC	Winnebago	43	25	4	93	32	5	1260	Randolph	SW	Fremont	40	52	28	95	34	0	980
Lamoni	SC	Decatur	40	37	24	93	57	3	1128	Rathbun Dam	SC	Appanoose	40	49	30	92	53	33	965
Lamoni Airport	SC	Decatur	40	37	50	93	54	3	1135	Red Oak	SW	Montgomery	41	0	13	95	14	31	1040
Le Claire L & D 14	EC	Scott	41	34	29	90	24	2	577	Remsen #2	NW	Plymouth	42	48	37	95	58	30	1330
Le Mars	NW	Plymouth	42	46	54	96	8	45	1320	Rock Rapids	NW	Lyon	43	25	48	96	10	7	1347
Little Sioux 2 NW	WC	Harrison	41	49	35	96	3	2	1025	Rock Valley	NW	Sioux	43	12	16	96	18	22	1246
Logan	WC	Harrison	41	38	17	95	47	18	1030	Rockwell City	WC	Calhoun	42	23	49	94	37	45	1224
Lorimor	SC	Union	41	7	29	94	3	5	1230	Sac City	WC	Sac	42	25	10	94	58	34	1210
Lowden	EC	Cedar	41	51	23	90	55	48	715	Saint Ansgar	NC	Mitchell	43	22	54	92	55	24	1139
Manchester #2	NE	Delaware	42	28	24	91	27	6	990	Salem 1 S	SE	Henry	40	50	8	91	37	20	650
Mapleton #2	WC	Monona	42	9	43	95	47	1	1200	Sanborn	NW	O'Brien	43	10	45	95	39	37	1551
Maquoketa 4 W	EC	Jackson	42	2	58	90	44	56	782	Sheldon	NW	O'Brien	43	10	51	95	51	10	1420
Marshalltown	C	Marshall	42	3	53	92	55	28	871	Shenandoah	SW	Page	40	46	2	95	22	48	975
Marshalltown Airport	C	Marshall	42	6	38	92	54	58	974	Sibley	NW	Osceola	43	24	17	95	44	54	1529
Mason City	NC	Cerro Gordo	43	9	47	93	11	43	1105	Sidney 1 SSE	SW	Fremont	40	44	10	95	38	35	1140
Mason City Airport	NC	Cerro Gordo	43	9	16	93	19	37	1225	Sigourney	SE	Keokuk	41	20	11	92	12	16	800
Massena	SW	Cass	41	15	19	94	45	54	1325	Sioux Center 2 SE	NW	Sioux	43	3	21	96	9	9	1360
Moline Airport		Rock Island, IL	41	27	55	90	31	24	592	Sioux City Airport	WC	Woodbury	42	23	29	96	22	45	1095
Montezuma 1 W	C	Poweshiek	41	35	1	92	32	59	965	Sioux Falls		Minnehaha, SD	43	34	40	96	45	14	1428
Monticello	EC	Jones	42	14	28	91	10	24	820	Sioux Rapids 4 E	NW	Buena Vista	42	53	35	95	3	55	1420
Mount Ayr	SC	Ringgold	40	42	19	94	14	34	1180	Spener Airport	NW	Clay	43	9	52	95	12	6	1338
Mount Pleasant 1 SSW	SE	Henry	40	56	55	91	33	53	730	Spencer 1 N	NW	Clay	43	9	55	95	8	48	1326
Muscatine	EC	Muscatine	41	24	27	91	4	22	549	Spirit Lake 4 W	NW	Dickinson	43	25	53	95	10	56	1430
Muscatine 2 N	EC	Muscatine	41	28	17	91	3	47	680	Stanley 3 WSW	NE	Buchanan	42	38	0	91	51	48	1114
Nashua 2 SW	NC	Floyd	42	56	13	92	34	13	1059	Storm Lake	NW	Buena Vista	42	38	49	95	11	36	1442
New Hampton	NE	Chickasaw	43	2	43	92	18	44	1148	Strawberry Point	NE	Clayton	42	41	7	91	31	57	1200
Newton	C	Jasper	41	42	42	93	1	47	960	Swea City 4 W	NC	Kossuth	43	24	8	94	22	59	1239
Northwood	NC	Worth	43	26	19	93	13	31	1190	Swisher	EC	Johnson	41	50	59	91	40	35	790
Oakland	SW	Pottawattamie	41	18	16	95	23	4	1260	Toledo 3 N	C	Tama	42	2	8	92	34	50	949
Oelwein 1 E	NE	Fayette	42	40	48	91	52	30	1165	Tripoli	NE	Bremer	42	48	45	92	15	27	960
Omaha Eppley Airport		Douglas, NE	41	18	37	95	53	57	982	Underwood	SW	Pottawattamie	41	23	22	95	40	52	1080
Orange City	NW	Sioux	43	0	2	96	3	14	1380	Vinton	EC	Benton	42	10	13	92	0	28	850
Osage	NC	Mitchell	43	16	46	92	48	38	1170	Wapello	SE	Louisa							
Osceola	SC	Clarke	41	1	10	93	45	1	1028	Washington	SE	Washington	41	16	57	91	42	28	687
Oskaloosa	SE	Mahaska	41	19	17	92	38	48	830	Waterloo Airport	NE	Black Hawk	42	33	16	92	24	4	868
Ottumwa Airport	SE	Wapello	41	6	28	92	26	48	842	Webster City	C	Hamilton	42	28	7	93	47	50	1170
Pella 1 S	SC	Marion	41	22	34	92	55	13	780	Williamsburg 1 E	EC	Iowa	41	39	54	91	59	52	810
Perry	C	Dallas	41	50	22	94	6	38	965	Winterset 1 S	SC	Madison	41	18	22	94	1	6	1104
Pocahontas	NW	Pocahontas	42	43	45	94	39	41	1212	Zearing	C	Story	42	10	1	93	18	35	1116

REFERENCE NOTES

DEFINITIONS

STATION NAMES: Name of the city or locality. Figures and letters following the station name indicate the distance and direction from the post office or town community center.

NORMALS: The average of the meteorological element over the period from 1981 to 2010. Normals are calculated by the National Climatic Data Center and are revised once every 10 years. The precipitation and snowfall normals are strictly an average of the values recorded during the 1981-2010 period. However, temperature and degree day normals may have been adjusted to better correspond to the current (as of 2010) temperature measurement practice and thus may vary slightly from the average of the original 30-year values.

DEGREE DAYS: One heating (cooling) degree day is accumulated for each whole degree that the daily mean temperature [average of the daily maximum and minimum air temperature] is BELOW (ABOVE) 65°F. Degree days are used to provide a measure of the effect of temperature upon energy consumption for heating or cooling of homes or buildings. The greater the heating (cooling) degree day total, the greater the amount of energy needed to heat (cool) your home or building.

PRECIPITATION: Values shown in hundredths of an inch are water equivalent totals, i.e., total of liquid (rain) and melted frozen (snow, sleet, hail) precipitation. The snowfall data tables include the unmelted depth of snow and sleet in tenths of an inch. The depth of snow on the ground (SN ON GROUND) refers to the depth of all snow or ice (new or old). This 'Snow on Ground' value is the depth of snow on the ground at the time of the precipitation observation at all stations *except*: Burlington, Davenport, Des Moines, Dubuque, Mason City, Moline, Omaha, Ottumwa, Sioux City and Sioux Falls Airports where the snow depth is measured at 6 a.m. CST while the new snowfall is that for the 24 hour period ending at midnight. Daily precipitation and snowfall amounts are for the 24 hours ending at the time of observation (given in the 'OBS TIME' column). An asterisk in the daily precipitation table indicates that the rain gage was not read that day. A multi-day precipitation total is included in the amount immediately following the asterisks.

TEMPERATURE: The daily maximum (MAX) and minimum (MIN) temperatures are recorded for the 24 hours ending at the time of observation. The significance of the time of observation in interpreting these data is discussed in the preceding paragraph.

TIME OF OBSERVATION: At most locations measurements of temperature and precipitation are made only once daily at the same hour of the day. This time is referred to as the 'Time of Observation' and is given in the 'OBS TIME' column of the data tables. All observations, unless otherwise noted, are for the 24 hour period ending at the time of observation. Note that in most cases the resulting data are not for calendar day (i.e., midnight-to-midnight) periods and further that the temperature observations may be made at a different time than the precipitation observation at the same station. See the

PRECIPITATION paragraph in this section for a further explanation of the significance of the time of observation. All times are expressed on a 24-hour clock (i.e., 7 a.m. = 7; 5 p.m. = 17; midnight = 24, etc.).

SYMBOLS USED IN THE DAILY AND MONTHLY DATA TABLES.

' ' Underlined data in the daily temperature, precipitation and snowfall tables indicates that the data in question has been estimated. Estimated data are provided when the original measurements are not available or are of suspect accuracy.

ITALICS. Data given in italics in the daily precipitation or snowfall tables indicate that the date on which the precipitation was reported has been changed from what was given on the original reports.

'+' A plus sign in the monthly summarized data tables indicates that the temperature or precipitation extreme given also occurred on one or more earlier dates during the month.

BLANK ENTRIES: Blank entries in the monthly summarized data table indicates that no data are available. Blank entries in the daily precipitation and snowfall data tables indicates that no precipitation was recorded. M = missing, no data recorded.

ABBREVIATIONS:

TMP DEP NOR:	Temperature departure from the 1981-2010 normal.
EXT MAX:	Extreme maximum temperature for the month and the day on which it was measured.
EXT MIN:	Extreme minimum temperature for the month and the day on which it was measured.
MAX 90+:	Number of days with maximum temperatures which were greater than or equal to 90°F.
MAX 32-:	Number of days with maximum temperatures which were less than or equal to 32°F.
MIN 32-:	Number of days with minimum temperatures which were less than or equal to 32°F.
MIN 0°:	Number of days with minimum temperatures which were less than or equal to 0°F.
16/17 SEAS:	2016-2017 season (July 1, 2016 through the end of the published month).
NOR SEAS:	Normal number of degree days through the end of the published month.
DEP NORM:	Monthly precipitation total departure from 1981-2010 normal.
EXT DAY:	Extreme one-day precipitation amount and the day on which it occurred.
.01+:	Number of days with precipitation of 0.01 inch or greater.
.10+:	Number of days with precipitation of 0.10 inch or greater.
1.00+:	Number of days with precipitation of 1.00 inch or greater.
MAX ON GRD:	Maximum depth of accumulated snow on the ground (inches) and the day on which it was measured.
OBS TIME:	Observation Time: The time (24-hour clock) at which the daily temperature and/or precipitation measurement is made (7 = 7 a.m.; 17 = 5 p.m.; 24 = midnight).
DIV:	Climate Division: NW = northwest, NC = north central, etc.
LAT:	Latitude in degrees and minutes north.
LON:	Longitude in degrees and minutes west.
T:	Trace: < 0.005" of precipitation; < 0.05" snowfall or <0.5" snow on ground.

